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The Naval Aviation Safety Review

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approach

Diamond Anniversary 75th Year of Naval Aviation

Do You Know This Man?

No? Then does August 29, 1916, ring a bell? That was when the intrepid Yale student in the photo is credited as having founded the Naval Air Reserve. In 1916, F. Trubee Davison gathered 12 fellow classmates who shared his passion for aviation. Borrowing a Curtiss seaplane from the wealthy Wanamaker family, the group set out to teach themselves to fly. The Navy took notice of their initiative, and on August 29, 1916, the Naval Appropriation Act for fiscal year 1917 established a Naval Reserve Flying Corps that included Davison's unit as well as several new units.

From an inauspicious beginning, the Reserve has developed into an air force that has fought alongside its active duty counterpart in every major conflict. Although they're often called "weekend warriors," Naval Air Reserve aircrew are, in fact, flying daily. In many cases, such as with C-9s, they're supporting the active Navy with an indispensable service. Today, the future of the Reserves looks bright. They are transitioning to frontline aircraft such as the F/A-18, F-14 and E-2C.To commemorate the 70th anniversary of the Naval Air Reserve, Approach interviewed its current commander, RAdm. Tommie Rinard. Read on.

Lt. Dave Parsons
Editor

inside approach

Vol. 32 No. 2

Cover design by John W. Williams depicts types of aircraft used by the Naval Air Reserve — present and past.

FEATURES

DEPARTMENTS

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Our thanks to Bob Lawson of the Hook, for many of the photos which accompany this article.

The Naval Air Reserve Reaches 70

AN important milestone has been somewhat buried in all the activity celebrating the 75th anniversary of Naval Aviation in 1986. The Naval Air Reserve was established in August 1916, and from 12 college students and one borrowed Curtiss seaplane, it has grown into a well-equipped organization of 52 squadrons, 357 aircraft and 34,350 regular and reserve personnel.

Approach Interviews RAdm. Tommie F. Rinard, Commander, Naval Air Reserve Force

By Peter Mersky

Some of the first Yale Unit, from left to right, back row: John M. Vorys, Artemus L. Gates, Albert J. Ditman, Allan W. Ames, David H. McCulloch, F. Trubee Davison, Robert A. Lovett and Erl C.B. Gould; front row: Wellesby Laud-Brown, "Ella" and Henry P. Davison.

To help observe the 70th birthday of the Naval Air Reserve, Approach interviewed RAdm. Rinard in his office in New Orleans, Louisiana. He is the Naval Air Reserve's top aviator, and a fighter pilot, with experience in VF 14, VF 22, VF 102, VF 124 and VF 174. He has served on the staff of DCNO (Air Warfare) in Washington, D.C. and commanded Naval Air Station Dallas, Texas.

Approach: Training reserve F/A-18A pilots poses a problem as they transition to the new aircraft. The program used by Fleet Replacement Squadrons (FRSs) cannot be fully utilized by a reserve squadron since Selected Air Reserve (SAR) aviators cannot devote six to eight weeks for concentrated training. What type of QA is used?

RAdm. Rinard: Actually, we led the transition by quite a long time, well over a year. We put our active duty cadre, both officer and enlisted, in the fleet readiness squadron (FRS) where they worked for over a year before we even got the

aircraft. They were checked out in the aircraft, including the instructor syllabus, and became qualified in teaching the aircraft as well. We also had a few reservists who did have the time to spend in the FRS.

The majority of the pilots, as you said, do not have the time to do that, so they get their initial Hornet NATOPS checkout in the FRS, then they return to the squadron for further training. We also have people who were previously instructors in the FRS and who now instruct in the reserve squadron, using the FRS F/A-18 syllabus.

We have been transitioning only A-7 and F-4 people into the F/A-18. Primarily because of the pre-planning that we did, we now have a cadre of highly experienced people. In fact, some of the people have been working on the Hornet for three years. Our enlisted SELRES have gone through the Fleet Readiness Aviation Maintenance Personnel (FRAMP) training.

Approach: There has been criticism of the Reserve F/A-18 program. Could you comment?

RAdm. Rinard: This has been one of the continuing questions during the Tailhook Symposium for the last several years. The question is whether or not to have the Naval Air Reserve transition into the latest fleet aircraft prior to all the active forces getting them. The argument is that if you're going into combat, you'll take your active forces first, and they should have the very latest equipment.

I think the F/A-18 is a good example of horizontal integration. A lot of the people who have contrary opinions forget that this was well thought out prior to making that decision.

If you go back and look at it, we haven't precluded any active squadrons from making their transition within their scheduled timeframe. What we've done is sandwich in one reserve squadron, at NAS Lemoore, with no additional support equipment required, such as the AIMD, which is the major portion of the support organization. Had we transitioned another fleet squadron, there wasn't a carrier capable of deploying it.

We did not do a full-blown transition to the F/A-18 by the Naval Air Reserve, and we did not impact the FRS with having to take a full squadron of people. We only shuffled a few people in and then we pulled back and did our own training.

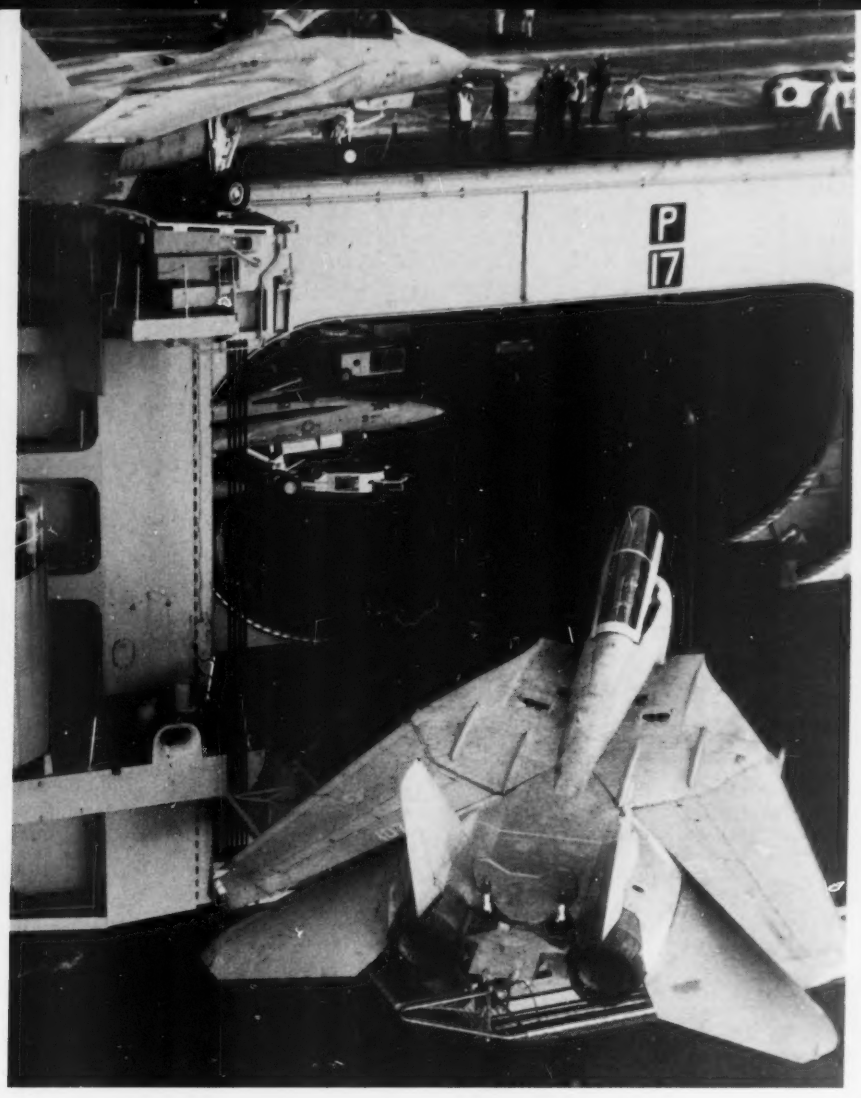
Going back to the broader question, when an aircraft approaches obsolescence, you start losing support. And as the last carrier becomes incapable of supporting that type of aircraft, you are no longer a valuable mobilization asset. By phasing in a new aircraft, such as the Hornet, what we've really done is maintain active squadrons in A-7s and change them as we change our carriers. In the interim, without disrupting that schedule, we have phased in one Naval Air Reserve squadron.

To my knowledge, not one active duty aviator has been denied transition to F/A-18s because the Naval Air Reserve got a squadron. Once again, until support equipment arrives, and that carrier's outfitted, the fleet can't afford to have the aircraft. As it turns out, the reserves will be the last ones to completely phase out the A-7s, when the carriers are no longer capable of supporting A-7Es.

We have two squadrons of F-14s at NAS Miramar. They represent half of the reserve's fighter assets. The two squadrons at NAS Dallas will begin their transition from F-4s to F-14s this year. This transition is timed to coincide with the F-4's departure from fleet operations, making the F-4 an undeployable asset.

There's no competition and there shouldn't be, in my opinion, between the active force and the reserve force. We aren't doing something in the Naval Air Reserve at the cost of the active force. The transition to the F/A-18 by one squadron has never been that at all. It was a phased-in approach, a logical phase-in, to properly integrate, horizontally, the active forces and the naval reserve.

We have to assume that our very usable reserve forces might, in fact, deploy, all or a portion thereof, prior to the active force. For instance, a fleet squadron's capabilities rise and fall as a result of deployment cycles. If a crisis arises at the end-of-cruise, during the active squadron's transitional stage, it might be appropriate to use reserve squadrons whose level of experience and capability is more even.



Approach: How do you keep reservists interested and thinking about safety, even though they are not involved in operations on a daily basis?

RAdm. Rinard: We maintain a very aggressive safety program just as the fleet does. Safety is a very personal thing and it should be part of one's attitude if one is professional. What we try to do from this office, is to have a good safety program and make sure everyone in our chain understands that we truly support safety. In everything that we do we always caveat the safety aspect: First, we fly safely and then we go do what we have to do.

Our basic watchword is: We have no operational necessity to override safety considerations. We try diligently to make sure that safety considerations are not overriden.

On the negative side, we maintain a strong, active role in assuring that people who do not fly professionally or operate the equipment professionally, are properly schooled, and if necessary, removed from flight status. We are not interested in people who do not place safety in a paramount position. We insist that our squadrons have strong safety and NATOPS programs; and we inspect those programs.

Any time we have a mishap or incident, we investigate it fully, and if there is major damage, we have a FNAEB (Field Naval Aviator Evaluation Board) to make sure our pilots are not going off on tangents. If a pilot has developed bad habits or exhibited poor judgment, we can't afford to have that individual in our organization. Our air wing commanders support our safety regulations, and we go right on down through our command chain. My staff has a Safety *and* a NATOPS officer, both of whom spend all their time making sure that our programs are, indeed, filtering down to the field activities.

The strength of our safety program is the individual pilot. The Reservist comes to us as a fleet-trained aviator. Many of them, happily most of them, come with a very professional attitude; with a high regard for safety and the part it plays. They're used to the NATOPS program and feel that it promotes safe flying and a professional method of flying. I don't think they feel that our NATOPS procedures inhibit or prevent them from doing the very best they can.

What it amounts to is that we're all in the same Navy.

The strength is that one pilot who has that depth and level of experience that we enjoy in the Naval Air Reserve. That is the reason we have been able to maintain superb safety records year after year. We have one of the best safety records in the entire Navy, and yet we operate some of the oldest equipment. Some of this equipment is difficult to support, which is another reason why the experience of our aviators plays such an important role.

Approach: What is your feeling on the Squadron Augment Unit (SAU) program? Is it achieving the desired integration with fleet squadrons?

RAdm. Rinard: The Squadron Augment Units are operating with fleet readiness squadrons in F-14s, A-6s, S-3s and H-53s. We have a SAU in the P-3 community that, while it does not train every weekend with the squadron, does perform its two-week Active Duty for Training (ACDUTRA) periods with the fleet VP squadrons, and that's very helpful. The overall result has been quite good. And according to VAdm. Dunn, COMNAVAIRLANT, it has worked very well.

Approach: What about the VR community? Are you satisfied with their performance and with the C-9? Are there plans to buy more C-9s?

RAdm. Rinard: We have been extremely satisfied with the operations. As you know, within the last year we completed our transition to an all C-9 force. We have modification work to do on some of the aircraft we've procured in order to get the full capability that we need.

The Center for Naval Analysis has recently completed a study updating our requirements. I believe it will show we have needs that *exceed* our capabilities. I have no way of knowing whether or not we will be able to program and obtain more assets. I *do* know the requirements support more assets.

Approach: Are there plans to bring bomber A-6s into the Reserve, especially since the fleet squadrons are looking forward to re-winged A-6Es and the on-coming A-6F?

RAdm. Rinard: Yes, we have a program for that. There is a plan to bring A-6s into one squadron in each wing, and that will give us a full capability, light *and* medium attack. We anticipate 1988 thru 1990 as the time frame for the introduction of the A-6E, aircraft which are in the fleet now. This is similar to the way we are phasing out the light photos, the RF-8s, as the F-14's Tactical Air Reconnaissance Pod System (TARPS) comes in. We still have one squadron left, VFP-206 in Washington, D.C., but when we stand up the F-14 in Dallas, we'll phase out the Crusader. With over 1,300 hours in the F-8, I hate to see it go. It's a good airplane, but like everything else, time moves on.

Approach: What is the status of the dedicated reserve carrier?

Is that issue realistically alive?

RAdm. Rinard: No, there is no reserve carrier being considered. The air wings are assigned to the SLEP carrier and the overhauling carrier.

Approach: Could you comment on the reserve VP community and the combat SAR helicopter program?

RAdm. Rinard: The VP community is in excellent shape. We

have modernized the aircraft and they have a greatly enhanced capability in prosecuting the ASW mission. There is money in the budget for P-3Cs, but the phase-in has not yet been decided. However, the future for the VP squadrons is bright, and I think they will serve well into the '90s with what we have now.

They are currently very closely aligned with the fleet squadrons in the operational area. The reserves cover six-month deployments in the western Pacific, at Masawa, Japan, and the Atlantic at Lajes in the Azores. The deployment cycles change from time to time. We have a scheduling conference every year with the fleet, and they tell us where and when they would like our reserve VP squadrons to deploy. We have a good, comfortable relationship regarding tasking, especially in surveillance and drug interdiction missions, which include the reserve E-2 squadrons as well.

We are currently trying to get the new combat SAR helicopter selected. The competition is on right now, so I don't know which platform will eventually win. The H-60 had been the platform at one time, but the decision was made to make the selection more competitive.

We will combine our light attack helicopter squadrons, the HALs, with the combat SAR squadron and create the first dual-mission squadrons somewhere in the 1988 time frame. These missions are very compatible, and they, the HALs and HC-9, (the combat SAR squadron), do a lot of the same things. We feel that, with the appropriate airframe, we'll be able to do a good job in both missions.

Approach: Do you think the reserves enjoy a better reputation then they had after the 1968 *Pueblo* call-up?

RAdm. Rinard: The 1968 call-up was certainly not good for the Naval Air Reserve. It highlighted the fact that the Naval Air Reserve was not equipped with appropriate aircraft. A study after the call-up pointed out the deficiencies but in no case, did it find deficiencies or lack of dedication in the people; and I think that's a very important fact to keep in mind.

We reorganized our entire force in 1970, in what was then called "mirror image" of the Navy, so that our reserve squadrons were identical to their counterparts in the fleet. We could then begin to compare apples and apples. That modernization was a very important and appropriate step to bring the Naval Air Reserve into an equal partner status with the fleet. We have proven through exercises and actual operations that we are capable, when given the appropriate equipment, of operating alongside the fleet and maintaining a level of readiness to allow the Naval Air Reserve to mobilize and deploy. And I think that's the name of the game. That's exactly what our mission is.

I have to make a very strong point. We must remember that the people in the Naval Air Reserve are Navy people who have been trained in the Navy system and the Navy's schools. They are veterans who participate less than full time, but they bring with them all that expertise, knowledge and experience. Certainly they can operate so long as they have the equipment that they are used to operating, and they can go into any environments that they would be required to operate in and do as good a job as the regulars, if not *better*, by virtue of their experience. What it amounts to is that we're all in the same Navy. ◄

Peter Mersky is a staff writer for Approach and is widely published as an aviation author, with three books and numerous articles to his credit. He is also a commander in the Naval Reserve.

Flash Fire Protective Hood

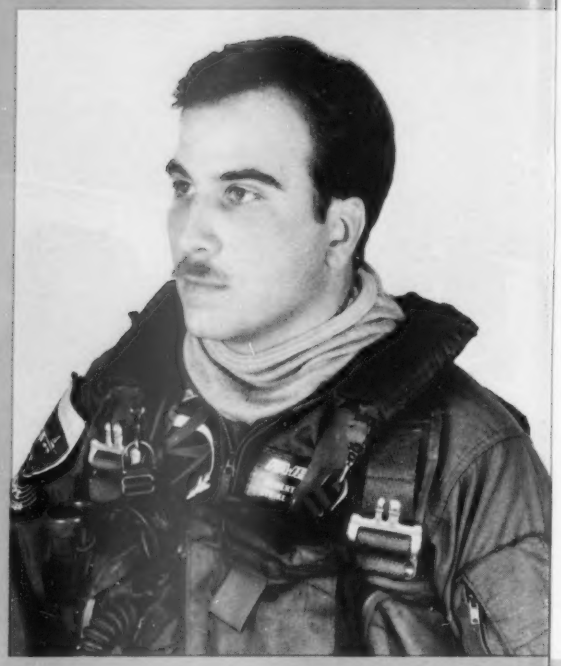
By LCdr. David M. Kennedy

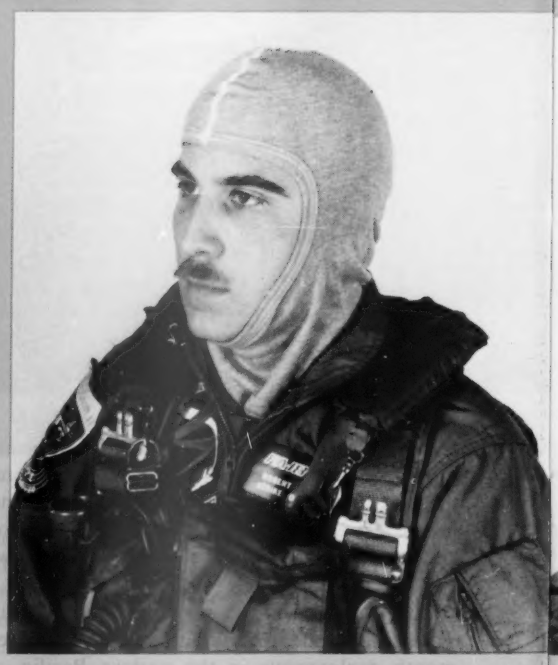
IN a recent aircraft mishap, a pilot wearing an HGU-33P helmet, Nomex flight suit and cotton underwear suffered second- and third-degree burns over cranial areas not directly in contact with helmet padding and ear cups. This cockpit flash fire tragically demonstrated that existing fire protection for the head and neck was, and still is, inadequate.

Responding to this mishap, the author, then a student at the U.S. Navy Test Pilot School, Patuxent River, Md., and Tim Jeffas, a civilian aircrew survival technician, evaluated several fire protective devices, including Nomex turtlenecks, Nomex scarves and dickies and modifications to the helmet skullcap. The best lead came from Mr. Jeffas' father, a volunteer fireman with the Prince George's County, Md., fire department. The item was a Nomex balaclava-style fire-fighter's protective hood. Contact with the manufacturer produced heavy, medium and lightweight samples for evaluation. The hoods were made of fire-resistent material, either Nomex or PBI.They can be modified for aircrew use by including longer front and rear flaps to insure a good tuck into the flight suit with no exposed skin.

The hoods take the place of the conventional skullcap. They can be donned just before the helmet or worn down around the neck when not in use (see photos). During the evaluation conducted primarily in cold weather, the hoods were convenient and comfortable. They effectively cut wind chill during preflight and ground operations. Lighter weights were required during warmer weather operations, however.

The evaluation produced a beneficial suggestion award by





the Naval Air Systems Command. RAdm. E.J. Hogan at that time the Navy's chief test pilot and Naval Air Test Center Commander, endorsed the proposal, stating:

"Flash fire protection used by professional auto racing drivers has repeatedly proved itself as a lifesaver. It could easily be adapted for use by aircrews in ejection seat aircraft with minimal expense. This would be a prudent investment in protecting our aviators."

The Naval Safety Center, Norfolk, Va., stopped short of recommending the hood for mandatory use due to the "low incident rate of burn injuries to the head" and "probable spotty compliance" if the item were required. The Safety Center endorsed the hood for optional use, however.

Subsequent liaison with the Crew Systems Division of NAVAIRSYSCOM indicated balaclavas were evaluated by VXE-6 during DEEP FREEZE 81. The squadron found the hoods offered excellent fire and wind protection but did not always fit well under a helmet and were too warm for routine wear.

Based on VXE-6's findings, the Aircrew Survivability Enhancement Program (ASEP) steering committee decided not to procure balaclavas as a Navy stock item of Aviation Life Support Systems (ALSS), but did not object to aircrew using a protective hood if they found it comfortable and it integrated properly with the required ALSS. The local commander is responsible for deciding whether the squadron or the individual will foot the bill.

NAVAIRSYSCOM recommends those who use a balaclava make sure the hood is made from Nomex or PBI, has a full face opening rather than eye slits and does not interfere with the fit or function of the helmet, oxygen mask and communication system.

Squadrons and DCAs requiring more information may contact the author at Strike Aircraft Test Directorate, NATC Patuxent River, Md, Autovon 356-4171.

A partial list of companies manufacturing protective hoods follows. This list does not constitute an endorsement of a particular product.

Auto World
Scranton, Pa.
717-344-7259

Charkate
Huntingdon Station, N.Y.
800-221-0224

Medalist Allen A
Piqua, Ohio
513-773-3152

Race Central
Portland, Ore.
503-248-0143

Race Quip
Dublin, Ohio
800-848-2973

Simpson Safety Equipment
Torrence, Calif.
213-320-7231

LCdr. Kennedy is with the Ordnance Department of the Strike Aircraft Test Directorate, Naval Air Test Center, Patuxent River, Md. Previously he attended the U.S. Navy Test Pilot School at Patuxent River.

. . . I was shocked at the reception that awaited us this time. Through hard driving rain I could see flashes of lightning around us. At the same time we were getting bounced around violently by the turbulent air currents . . .

Why I Don't Fly in Thunderstorms Any More

By Lt. Carlos Ayuso

I was your typical T-2 Sergrad; experienced enough to know what to look for during a training hop, but inexperienced enough to be fearless. I was getting pretty good at flying the Buckeye around the Southeast skies. At the same time, I was also getting bored with flying the standard fam and instrument sorties. As a result, I began to act cocky and look for ways to test my prowess. On one occasion, I found a bigger test than I had bargained for.

It happened on a RI-6/7 Out-and-In. The plan called for a late afternoon hop to NAS P-3 Base Southeast, for a TACAN approach into the GCA box with multiple approaches and a full stop. Then, a quick gas-and-go for a night leg back to homeplate with an NDB (ugh!) approach and more GCAs thrown in for good measure.

We briefed the first leg in accordance with squadron SOP. The student had done his flight planning, and his jet logs were in order. After getting the side number of our training device, we made the trek to base operations to get the weather brief and file our flight plan.

The prognosis from the weather-guesser was favorable but not outstanding. The area around our destination had been experiencing heavy convective-type thunderstorm activity for most of the day, a not uncommon summer event in the Southeast. As the day wore on and the ground cooled, the activity was expected to die away and all we would have to contend with was remnant IFR conditions and scattered rain. It was your typical, "It's not good now, but it will be by the time you arrive," check's-in-the-mail observation. We took his word and filed our flight plan.

After some fatherly advice from our ODO about avoiding the weather and having a good divert field, we manned our trusty Buckeye. Heading east at FL 250, 75 miles from homeplate, we ran into high cirrus overspills from the storms to the north. The student under the bag in the back seat noticed that the sun was no longer shining on the canopy. I eased his and my fears by stating that we weren't in any serious weather, and at times I could see that it was clear to the south where Panhandle Fighter AFB was located.

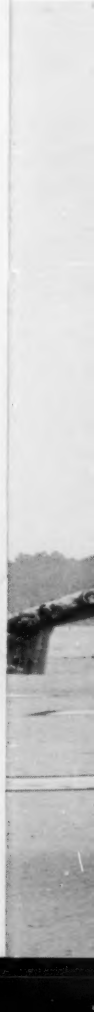
Continuing on, we kept popping in and out of cirrus. When we were in VFR conditions, I was able to make small course deviations, with ATC's permission, to avoid areas where I could see cloud bases extending toward the ground. I was uncomfortable about the conditions but felt pretty confident about my technique for avoiding thunderstorms.

We finally switched to Approach Control, informing them of our approach intentions and our desire to maneuver as necessary to avoid weather. After being cleared to the initial approach fix, the student turned the airplane to set up his point-to-point, started his descent and began the pre-descent checklist. We were IMC most of the time.

Up to this point I had been fairly lucky. I had made a decision to continue to our destination in marginal weather, in an airplane equipped with little IMC capability: no radar, no wing de-icing and no engine inlet heat. In fact, fiberglass makes up a lot of the T-2, including leading edges, nose and intakes. We were meeting our training objectives, were almost at our destination and would be home free once we started the approach. Well . . . not quite.

As we broke out of a cirrus layer at 16,000 feet, directly in our flight path lay what I knew to be a thunderstorm. It appeared to tower more than 10,000 feet above us, but a clear area lay to our left. Although I had a few seconds to make a decision, I made a non-decision and let the student fly into the storm instead of taking the jet and turning toward the clear area. I told the student to prepare for the worst as we entered.

When I was a student, I had flown into two storms with little ill effect. I was shocked at the reception that awaited us this time. Through hard driving rain I could see flashes of lightning around us. At the same time we were getting bounced around violently by the turbulent air currents. I



finally took control of the aircraft and tried to maintain wings level until we broke into the clear again. I then told the student to take down the bag. The training was over and my only objective was to safely land.

I quickly called approach to inform them of our new intentions. They replied that our destination just went below minimums (thunderstorms) and NAS Light Attack was also closed with aircraft trapped on all runways. The next step was to ask about NAS Helo Base, while rechecking the gas in case we had to make the 80 NM to an Air Force base. Luckily, NAS Helicopter Base was calling themselves VFR. On the way, I noticed an increase in noise coming from the front of the aircraft.

We landed and taxied in. We could see lightning darting everywhere in the sky. It was just a plain nasty day. I was relieved to be on deck even though it was going to be another night away from home. After jumping out and taking a post-flight look at the jet, I knew I had underestimated the length of my stay. I also found the source of the airborne noise. Every fiberglass surface on the jet was eaten away. The nose cone had a 7-inch diameter hole in it. Both intakes had holes over at least 40 percent of the surfaces. The sealing compound holding both wing stall fins was eaten away to the point where I could pull one of them off with my hand. One of the engines was found to be fodded after a borescope inspection. The end result was a week away from home with a small maintenance DET to change the engine and do a patch job on all the fiberglass. The airplane returned home after a test flight, and stayed down for months while NARF restructured and repaired the fiberglass surfaces.

Needless to say, I am no longer fearless. In fact, I'm deathly afraid of thunderstorms. I had flown into a level V thunderstorm (level VI is the most violent) at the freezing level (a bad place to be). I was lucky to have escaped with nothing more than a good lesson and a beaten up aircraft.

I am now more reluctant to fly into weather that is forecast to have thunderstorms, rain or icing. I ask more questions of the weather briefer and use Metro en route for updates. If IMC, I ask center or approach controllers for help to keep clear of precipitation and imbedded cells. If I cannot fly over or around the weather, I start heading to my divert to wait out the storms. I've finally realized that in addition to not impressing anyone by flying into weather, it just doesn't pay to fool with Mother Nature. ◄

Lt. Ayuso is assigned to VA 27, an A-7 squadron based at NAS Lemoore, Calif.

Another good reason to avoid thunderstorms is hail. This AV-8B was severly damaged when it encountered hail during IMC flight.

"I Don't Get No Respect"

Something has been bothering me for some time now, and I have finally decided to get it off my chest.

I've been a PR (parachute rigger) for quite a few years, and I've served in a varied assortment of commands. No matter what type of command I go to, I have found that the PRs are treated as the black sheep of the aviation community. I have no idea why this attitude exists, only that it does. This is an open letter to all those people who work with us:

1. PRs are basically nice people. Just because we won't modify your flight equipment because you think it will work better or be easier to use doesn't mean we don't like you. No, you can't have an all-red helmet. Any modification that is not called for in the NA 13 series manuals is illegal.

2. Just because we have a sewing machine doesn't mean that I'm Betsy Ross. I have had many people miffed at me because I wouldn't sew something for them. If your car needs a tune-up, do you ask the mechs to do it? When you want to get a dent pulled out of your right front fender, do you ask airframes to fix it? Then why do you assume that we're going to drop what we're doing to hem pants, sew on crows or make parachute bags? I have a job to do just like you. Please let me do it!

3. There is absolutely no mention of the Kingsley Gold Stamp Machine in any of my manuals. Making name tags is one of the most time-consuming, bothersome and least productive jobs a PR is expected to do. I say "expected" because "the PRs have always made name tags." Thirty years ago someone decided that making name tags for his crewman would be a neat idea. It has since blossomed into a costly chore. I

Let Anymouse Know. We encourage you to write Anymouse whenever you see "a mishap about to happen." If you know of a hair-raising situation in the air or on the deck, let Anymouse know about it. You may help someone else avoid an unsafe incident.

Anymouse is a unique department in Approach where no names are used. All information is anonymous. In fact, Anymouse was born three decades ago when someone couldn't spell "anonymous" and signed his letter "anymouse." Thus, a mouse wearing flight gear has become a worldwide naval aviation safety symbol.

Over the years we have found it is often more prudent and speedy to report unsafe situations anonymously. Keep in mind, though, that Anymouse is not interested in personality conflicts or non-constructive criticism of individuals. All views expressed are those of the writers and do not imply endorsement by the Naval Safety Center.

For your convenience, postpaid Anymouse mailing forms are available in most ready rooms and from most flight safety officers. Use of the form is not mandatory, though. Just jot down your thoughts and mail to Anymouse, Approach Magazine, Naval Safety Center, NAS Norfolk, VA 23511-5796.

ANYMOUSE

actually had someone tell me that making name tags was my job and that they were required. Guess again.

4. PRs are professionals. We are charged with the awesome responsibility of being a pilot's or crewman's last chance for survival. When your equipment leaves the shop, it is in the best possible condition. How can some people treat it as if it were junk? I have seen survival vests dropped from aircraft, kicked across the hangar deck and generally treated as if they were indestructable. Remember that $460 PRC-90 radio in the front pocket, or that nifty SDU-5/E strobe light? One stormy night in the middle of the Atlantic you may need that equipment. Did you preflight your gear before the launch?

5. Get *all* your equipment in for inspection on time. When an aircraft needs a 14-day, it's sitting in the hangar, available for work. Flight equipment is a different story. "I left it at home" or "I'll drop it off after this flight" are just two of the many excuses I've heard for not turning equipment in on time. I have personally resorted to following crewmen into the head and inflating their LPA. Crude, but efficient.

Well, I've waxed poetic long enough. I love my job, and I'm damned good at it. I won't stand for second rate work. I also will not let anything distract me from my work. I may not win any popularity contests, but I don't think they have a block for that on the evaluation form . . . yet.

Maltreatedmouse

All Work, No Play

There have been three accidents in my squadron. One crewman tripped over a tie-down chain and hit his head on the starboard wheel well. Another backed into an aircraft with a piece of GSE gear. The third splashed paint stripper on his face. Fortunately, no one was seriously hurt.

In my opinion these problems were caused by lack of rest. We had been working for the past two weeks every day with no days off. Tempers were rising steadily as the work days passed. All this for a corrosion inspection. From the safety standpoint it hardly seems worth it.

Workedupmouse

While fatigue can be a factor in mishaps, two weeks should be manageable. It is more likely that the accidents you describe were caused by inexperience or complacency. Commands should, and usually do, give as much time off as the workload allows because it's just good management, but there are a lot of events, including corrosion inspections, that are important. Like the man says, "If it were easy, anybody could do it."

Stick It to 'em

During depot level repairs, the control stick of the jet was removed. The repairs were completed but the stick was left lying on the console. No one provided any maintenance documentation concerning the stick's removal.

That night a maintenance man placed the stick in its fitting with just enough force to make electrical contact for a weapons check. No documentation was performed, although once again it should have been.

The aircraft sat in the hangar until morning, when it was towed to the flight line where a daily inspection was performed. The plane was signed off by maintenance control as safe for flight.

Soon afterward a pilot taxied the plane for takeoff on an ACM mission. As he was checking his weapons, the entire control stick came loose in his hand. Had the stick been resting more firmly in its socket, this could have happened in the air with catastrophic results.

Every maintenance action should be documented. Had this been done in this instance, someone would have discovered that the control stick wasn't secure.

Outofcontrolmouse

According to John Cataldo, executive assistant in the Aviation Safety Programs Directorate at the Naval Safety Center, a situation like this caused the loss of an A-4 in the early 1970s.

Ejection Seat Hazard

I've noticed a potentially dangerous situation aboard this aircraft carrier. In one of our shops, I saw a time release mechanism for a Martin-Baker GRU-7A ejection seat inside a test chamber. Maintenance personnel were adjusting the barometric device that senses the altitude of the seat. Above a certain altitude (about 13,000 feet), it prevents the main chute from deploying, so the pilot may free-fall to a lower altitude, then it permits the chute to open normally.

When this device fails its test, a new one is ordered and the old one returned to supply. There's no provision for adjustment at the squadron level. I notified the supervisor about this, but he didn't do anything.

I discovered that unauthorized maintenance of ejection seats on board this carrier is very common. Parts are interchanged from different seats. Seats are removed from aircraft and reinstalled without the use of a crane. I've seen rocket motors lying on the hangar deck unattended. Sooner or later this may cause a serious mishap.

Scaredtodeathmouse

These are very serious violations of established maintenance procedures. Adjusting a barometric device sensor is contrary to servicing instructions in NA 01-85 ADF-2-2.3. Cannibalization of spare parts from ejection seats requires TYCOM approval. Removing seats without a crane and rocket motors lying around is asking for trouble. ◀

Feeling Fine or Foolish

By Lt. James A. Speirs

IT was a typical pilot training flight, scheduled for five hours with a 0900 preflight. One of the two pilots I was to instruct had a last minute home emergency and could not make the flight. It was a great day to fly, and the ops boss didn't want to lose the flight hours so he recruited a "fill-in" student. As luck would have it, the off-going SDO said he had been able to get some rest during his watch and he felt up to getting "another check in the box."

I quickly prepared a new training scenario for the hop, and briefed both pilots concerning the training flight. The preflight went smoothly and soon we were in the air. After a leisurely transit south to a field which none of us had previously visited, the third pilot (the last minute add-on to our crew) flew a pretty good approach into NAS South. I did note, however, that he was consistently 50 to 100 feet off the published altitude restrictions. Once I called the field in sight, he flared high and chopped the power. We waved off and entered the touch-and-go pattern.

The third pilot's landings were safe, although inconsistent. On one pass he would have to add power to make the runway, while on the next he would land fast and long. Since he had never landed at this field, I attributed his inconsistency to the new surroundings.

After I felt he was a little more comfortable with the environment, we commenced engine-out work. He was working hard on his first three-engine landing, but got it on the deck OK. On the taxi back for takeoff I asked how he felt. He said, "I'm feeling fine."

On the takeoff I gave him an engine failure on No. 4 after refusal. What then occurred was "Mr. Toad's Wild Ride." As usual, we started to go right of centerline, but he then overcorrected, causing a large swerve to the left. Just prior to reaching the left edge of the runway, we reached rotation speed and broke free of the surface. In an attempt to get the nose up five degrees while simultaneously raising the gear and flaps, the 3P put too much muscle into the procedure. In front of us now was the tower and a hangar. I took control, brought power up on No. 4 and corrected our flight path to enter a normal downwind.

I was surprised by the 3P's errors because I knew him to be a pretty fair stick. When I looked over at him I was even more surprised. He was extremely pale and covered with sweat.

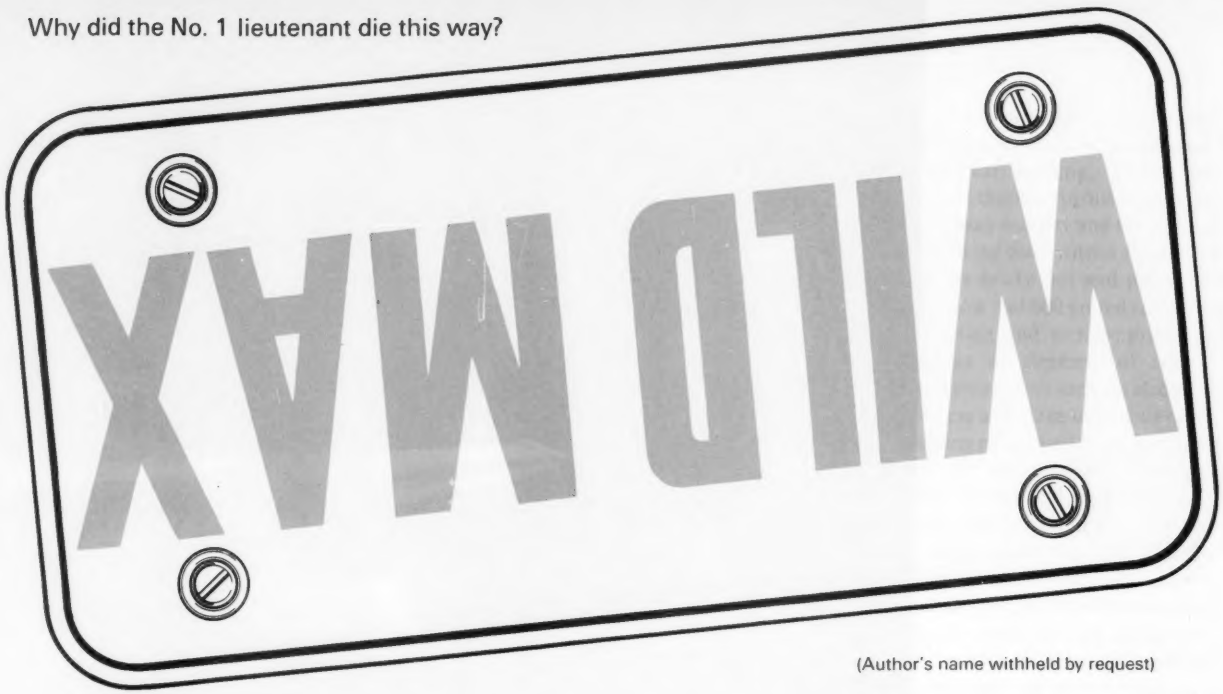
We climbed up to the delta pattern and I asked him again how he was feeling. This time he confessed he was feeling tired and not really up to flying. I had the other pilot get in the seat and the 3P excused himself and started aft to get a drink of water. He got only as far as the main load center before he "lost his cookies." The 3P returned to the flight station and reported that he was not feeling very well. I terminated the flight and returned to base.

After the flight, I began to consider which signals early in the evolution could have been indicators of the 3P's deteriorating physical condition. Undoubtedly, the fact that he stood a 24-hour duty was a major contributing factor. Even with six hours sleep, standing a day-long watch is fatiguing. Once airborne, his approaches and landings were not up to his usual standards. He was working harder on each pass, but with fewer results. When I finally asked him how he was feeling, he was not honest and gave me a brief "macho" response.

Flying an aircraft when you are not at 100 percent is not only foolish but extremely dangerous. As professionals we must be honest with ourselves and take the proper steps when not feeling entirely capable. In this case, a "can do" 3P and a resourceful ops boss joined hands to almost create a mishap. The prevention of such mishaps is honesty. Be honest with yourself and honest to your responsibility. ◄

Lt. Speirs is NATOPS officer for VP 40 at NAS Moffett Field, Calif. and is a patrol plane commander, mission commander and instructor.

Why did the No. 1 lieutenant die this way?



(Author's name withheld by request)

The phone rings. COMFAIRBACKYARD rolls over and goes back to sleep.

Safety officer, temporarily ashore, answers, "Hello."

"Jerry, this is Dave. I've got the duty. Wild Max is dead."

"Say what?"

"Max and Jocko were in an accident in Max's old Porsche on the way home from the Thursday night special at the beer slinger. They ran off the road and flipped a mile short of the house. That car didn't have seat belts. Max was DOA and Jocko is in intensive care."

"My God!" One of the most dreaded things in a safety officer's career has happened. A good friend, a talented officer and a valued shipmate has died, accidentally and inexcusably. We start the CACO process. The next of kin is notified. The personal effects are gathered, inventoried and shipped. The remains are escorted home by a close and numbed friend.

Months later, the wardroom and squadron prepare for workups. The shock has subsided, at least enough to allow some objective introspection, and questions begin to arise. Why did the No. 1 lieutenant, an extremely talented and spirited man, die this way? Could the commanding officer have prevented it? Could the safety officer have prevented it? Could the JOs have prevented the death of their shipmate, who was a driving force in the morale of a tightly knit group of hard-charging, go-getting, work-hard-and-play-hard, over-achievers? No answers. It's too late . . . or is it?

Can we prevent this needless waste in the future? Skippers, safety officers, officers and shipmates all, look around your wardroom right now. Whether you're afloat, hangar flying, on detachment, enjoying homeplate liberty or in the overseas admin having a rousing good time after a long line period, take a moment and look. Any obvious or not-so-obvious problems? Any DUIs not followed up? Anybody passed out two hours after hitting the beach? Any blood-shot eyes at the 0800 brief?

Lots of questions. The aviators involved were boomers all, including department heads and the CO. They had the highest of maintenance and operational statistics and the finest and most-frequented parties. It just couldn't get any better than that!

The deceased was always the first to party and the last to quit. He was a tactician and teacher (read NATOPS Evaluator) of no small stature, a "JO" in the finest sense of the title. He was widely respected and admired. He had a fast car, a pretty lady, lots of friends . . . and an alcohol problem. Although most of his shipmates were unaware of this problem, some knew. Sound familiar?

Naval aviation is one of the most challenging and rewarding professions in existence. The performance, stress and danger are documented and acknowledged. Our zest in work and play will, I hope, continue unabated.

In most aviation situations we consider an often heard safety slogan: "Stay alert, stay alive." Just as we are on the alert for aviation and shipboard safety hazards and take corrective action, the same should be done for impending human hazards.

Skippers, don't just know your people; do something with that knowledge. Officers who live, eat, fly and go on liberty together are closer to one another than any other group of professionals. For us not to look out for each other is irresponsible. ◄

The Viking and the Thunderbumper

By Lt. Andrew W. Eberhart

EVERYONE who flies Navy aircraft has sat through countless hours of simulator training in which a merciless instructor launches a trainer on a "routine" flight, fails one system, deletes another, throws in bad weather and then tops it off with an uncommanded fuel dump. As your simulator runs out of fuel and glides slowly into the ocean five miles from the nearest field, you feel humbled. Then you quickly reassure yourself and your co-pilot that all those emergencies could never happen at once, and you will easily handle any "normal" emergency. But as sure as Murphy still writes proverbs, serious compound emergencies occur.

On a US-3A launch from NAS Island West, my co-pilot and I were tasked with a 500-mile flight to the ship, passenger pickup and return. We anticipated few problems. The weather was good, our aircraft had a minimum number of "up" gripes and it was the type of flight we'd both done a hundred times before. The flight went smoothly. We arrived overhead as scheduled, trapped, ran below for a quick lunch and returned topside. Due to a respot, the ship wasn't ready to launch us and we slid for an hour.

At launch, we had one hour of daylight and a relatively short two-hour flight to the beach. We climbed to 31,000 feet, connected the auto-pilot and checked all the systems. Everything but the radar was working and we had plenty of fuel.

Then, 300 miles from home plate, the master caution light began to flash. A corresponding engine oil pressure light illuminated, and we watched as pressure in the No. 2 engine went rapidly toward zero.

As I pulled the throttle to idle, the pressure continued to drop and I secured the engine. At this point we weren't in an overly critical situation. The US-3A flies well on one engine, and it wasn't the first time we had shut down an engine. We declared an emergency with ATC, but since we were in a non-radar environment we had only marginal communications. Unable to maintain 31,000 feet single-engine, we descended to 17,000 feet. Since we were not night current at the ship and almost halfway, we continued toward the beach. Our new configuration and altitude cut our ground speed significantly. We'd have to closely monitor fuel consumption.

Shortly after nightfall, we began to see numerous flashes of lightning in line with our flight path. We both looked at our inoperative radar, silently vowed to get even with the clear-and-a-million forecaster and pressed on.

As expected, the fuel in the transfer tank to the good engine was burning down, while the fuel to the inoperative engine remained in its side of the fuel system. The aircraft has a fuel interconnect valve for such a situation. Even so, we calculated that if we couldn't get that fuel to transfer, we still had enough to make home plate.

As we continued on, the weather soon became a factor, further degrading our situation. We began encountering intermittent IFR with thunderstorms. We avoided the weather we could see but ultimately ended up flying directly through a rather significant cell. Halfway through the buildup there was a loud bang, as if someone had hit the side of the aircraft with a bat. The noise, caused by a lightning strike, was immediately followed by the master caution light illuminating and a corresponding Leading Edge (LE) Flap Asymmetry caution light. I looked out at the left wing and saw that my leading edge flap was up. The co-pilot checked the right wing and reported the flap down.

After finishing the thunderstorm penetration, I cycled the LE flaps. The left side worked, but the right side would not retract. This further slowed our ground speed, increasing our drag. We were now 150 miles from home and able to contact approach control.

Declaring an emergency and requesting a minimum fuel GCA, we discussed our plans for landing. There were showers and thunderstorms in the area, but the runway was dry and the weather clear. When we were within 10 miles of the field, we broke out and proceeded VFR. We now had 600 pounds of usable fuel remaining and were approaching the field at 45 degrees off runway heading. To conserve fuel, we elected to hold the gear and flaps until four miles.

Everything progressed as planned until I lowered the gear and flaps. The gear functioned properly; both leading edge flaps were completely down, but the trailing edge remained up. This increased our approach speed by 25 knots and necessitated an uncomfortably steep turn into the bad engine to avoid overshooting the runway. We quickly decided to land and take the gear if necessary, rather than risk a go-around with minimum fuel. Touching down at 135 knots on 9,000 feet of runway, the plane was easy to control but wasn't slowing significantly. With 4,000 feet of runway remaining at 100 knots, the co-pilot lowered the hook, which engaged the first set of long field gear.

Post-flight inspection revealed that a leaking pump had drained all the oil from the No. 2 engine. We also found a softball-sized hole in the horizontal stabilizer, as a result of the lightning strike. The flap difficulties were caused by a spurious input to the control logic assembly (CLA), also resulting from the lightning strike.

During debrief, we discussed the flight, the actions we had taken, those we hadn't, and most of all, the unlikely series of events that Murphy had pieced together for us. It was unusual for so many events to take place, but it did happen and in the future I'll think twice before cursing some overzealous simulator instructor for overburdening me with "unrealistic" compound emergencies. ◄

Lt. Eberhart graduated from Cornell University and received his wings in 1983. He flew the US-3A with VRC 50, NAS Cubi Pt., RP. He is currently undergoing transitioning to the A-6 with VA 42.

"We Have Met the Enemy, and He Is Us"

By Cdr. D.W. Rucker

A RECENT H-46 crash made some people believe this phrase. The crash, which killed two aircrew and a large number of troops, had some unusual aspects that apply to other troop-carrying helicopters such as the H-53. In this particular crash, there are four points to ponder: It was a night launch from an amphibious assault aviation ship. The passengers were, for the most part, unbriefed on egress procedures. Many of the emergency exits were blocked. And one aircrewman wore only a gunner's belt; the other was wearing neither a seat belt nor a gunner's belt at impact.

General NATOPS (OPNAVINST 3710.7L) paragraph 603 delineates the responsibilities for briefing passengers prior to helicopter flights. For in-the-field troop lifts it's the ground command's responsibility, while on shipboard flights it's the ship's CO. On board ship, this is assigned to the ATO, CCO or helo briefing officer, depending on the type of ship. No matter who is supposed to brief the passengers or troops, it's the aircraft commander's responsibility to see that it has been done. After all, once these people are in the helo, they are the HAC's responsibility. The crew chief must ensure the passengers have been briefed before telling the pilot, "all set in the back." Some of the passengers in the H-46 mishap had their LPAs over their heads but not attached at their waists. A crew chief must pick this up and help the passengers prior to departure.

On all large troop-carrying helicopters many of the emergency exits are blocked. As we add gear and expand the mission profile, we sometimes neglect basic safety considerations. Many crew chiefs use parachute cord to tie the seat belts up off of the seats. These seat belt and cord combinations cause a great safety net blockage effect in front of an emergency egress window. Gun mounts with quick release pins may be mounted in front of at least two emergency exits, even when guns are not installed in the aircraft. Cruise boxes containing tools, cranials, LPAs and life rafts are routinely positioned in front of large emergency exits. Squadron safety officers are encouraged to inspect their aircraft and get these items corrected. In the H-46 mishap, most of the fatalities were from drowning. For one reason or another the troops could not get out of the aircraft. Talk to your aircrews on training days about why these changes are necessary. Plane commanders must look for dangerous practices on preflight.

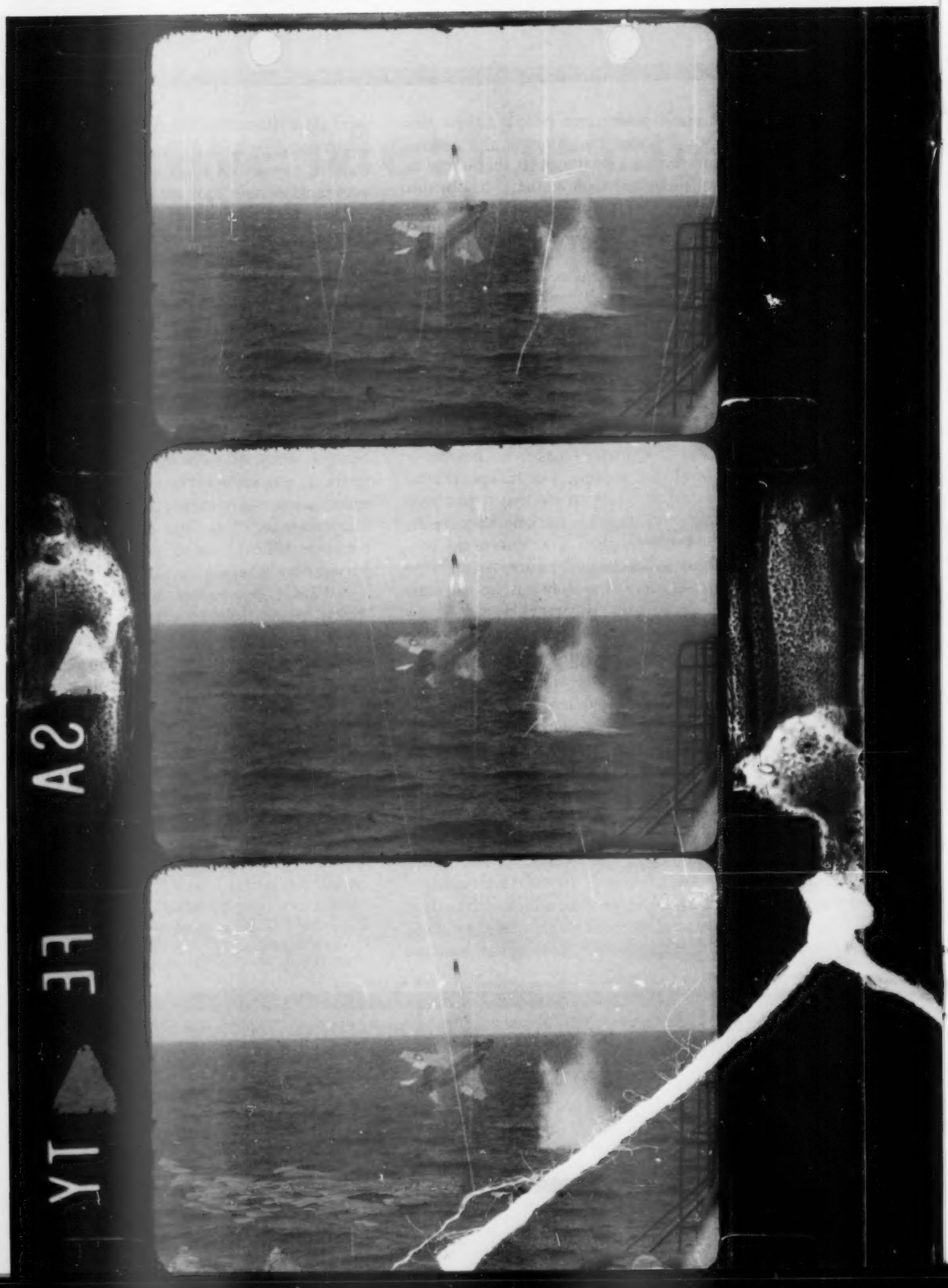
There is a fleet-wide misconception that the fold-up troop seat in which the crew chief sits is an authorized seat for takeoff and landings. General NATOPS again states that all passengers *and* crew members will be positioned in a seat **with seat belt attached.** This does not mean a gunner's belt. The seat belts were deleted from the H-46 jump seat because they got in the SAS closet and could bind the flight controls. Therefore, this seat is **not** to be occupied for takeoff and landings. One person died in this H-46 crash because he was wearing a gunner's belt; the fatal injury (a crushed chest) was a direct result of wearing a gunner's belt vice a seat belt. The Second Mech, who was walking down the aisle without any restraint, also suffered traumatic injuries. Plane commanders must look back and ensure that all passengers and aircrew are strapped in for all landings and takeoffs. Until we reverse this trend we will continue to see needless fatalities in otherwise survivable mishaps.

NWP-42(G) paragraph 5.2.1 states "Night helo passenger flights to and from air capable ships (all ships other than CV/CVN or LPH/LHA) shall be limited to situations of an operational necessity to properly certified ships." Operational necessity is defined as "mission associated with war or peacetime operations in which consequences of an action justify the risk of loss of the aircraft and aircrew."

If we are going to transfer large numbers of passengers or troops at night, let's shift the odds in their favor. Tie a few chem lights (green) over each window exit just prior to takeoff. Ensure everybody knows where the exits are and how to use their emergency gear. Consider the consequences of scheduling a night mission. Is it really to train aircrew or ground pounders? ◄

Cdr. Rucker is Head, Aircraft Mishap Investigation Division of the Naval Safety Center. He has served as the safety officer, USS *America* (CV 66), and flown a wide variety of helicopters in various squadrons, including UH-1Bs (HAL 3), RH-53Ds (HM 12) and H-46s (HC 6).

Emergency D



Decisions

By Cdr. G.R. Murchison

The problem began with a hydraulic failure. The pilot completed his emergency procedures, but he started having severe problems controlling the airplane. He then decided to bingo to a nearby airfield, but changed his mind (with a great deal of help from the ship) when the controls seemed to fix themselves.

Gotcha!

The problems with the controls returned, making a shipboard landing impossible, a field landing highly unlikely and a bingo impossible due to the now reduced fuel state. The decision to turn back toward the ship was largely academic, since even if he'd been able to make it to the bingo field the first time, he probably wouldn't have been able to land the airplane. However, it is certain that the *chance* to decide on whether a landing could be made was lost with the fuel used to turn back.

We spend a great deal of effort learning emergency procedures. The beauty of these procedures is that the decision-making has been done in advance, on the ground. Situations have been critically analyzed with the benefit of time, publications, drawings, equipment, experts, sea stories, test flights, mishap investigations and safety reports. All the pilot has to do is to recognize that a procedure is called for and execute it. Still, he must often decide whether the situation calls for the procedure. Try as we may to avoid it, situations arise for which procedures have not been established. Procedures themselves often call for decisions. "Land as soon as practicable" has as many definitions for "when" and "where" to land as there are situations calling for the procedure.

Naval aviators want the "best" solution to an airborne problem. This desire remains when aviators hold directive or advisory positions such as air ops, primary and the captain's chair. Everyone wants to contribute to the effort to come up with that "best" solution, one that will work *and stand up under post-event analysis*. Few things irk an aviator more than a Monday-morning quarterback.

Unfortunately, in our quest for the best, we spend time. Time equates to fuel. Time further equates to a deterioration of an already damaged system. Time equals closing on other failures that may be unrelated to the initial emergency, and time equals *options*. Granted, there are situations that dictate waiting to perform a particular action. It would be less than smart, for example, to lower gear and flaps by the emergency systems before you have a place to land. These must be cranked into the decision-making machinery. However, the *decision* to wait needn't wait. Where we seem to lose ground in the handling of emergency situations is during the relentless search for the optimum course of action, when we start taking away options through the passage of time.

I would propose a different approach to emergency decision-making. The test of the value of a decision should not be whether it is the *best* course of action, but rather *whether it will work*. All too often a plan that will work is abandoned for a "better" idea which turns out to be not so good after all. This is especially true of solutions offered from people not in the airplane. Lots of good decisions come from others. Indeed, it often takes the expert on the ground to figure out what *will* work. But if you have decided on a plan that works, any change to that plan had better have a good reason behind it. And if the change takes away the option of the original plan, then it had better be mighty good.

A famous horror story comes to mind that illustrates my point. Once upon a time, a carrier was practicing blue water ops off the coast. An airplane had a hung main landing gear, and the pilot eventually decided to bingo. The bingo decision was countermanded, however, and the pilot returned to the ship. During an attempt to plug, the probe was torn from the airplane. Out of gas for a bingo and unable to land aboard the ship, the pilot was directed to eject alongside. The seat didn't work and the pilot went in with the airplane. In this case the bingo option had been abandoned in favor of a "better" idea. I'm not about to say that the bingo with a two-wheel field landing was the *best* decision possible at the time and under the circumstances, but abandoning the option turned out to be fatal. Had the attempt to tank been made close enough to the bingo field to continue with the field landing, this mishap could have had a much happier ending.

In the decision-making process, it is especially important to remember that the pilot in command is generally the best judge of how well he can handle the pilot/airplane interface and successfully complete a particular course of action — especially if he's a nugget. The decision-maker on the ground must exercise extreme care in offering "better" alternatives to a course of action that has already been selected. If you're senior enough (and any voice from the ship is), the offer will be received in the cockpit as more of a command than a suggestion. The time for training and detailed analysis of options is **after** the airplane is safely on the ground or back aboard. The lessons learned may be a little more embarrassing to the pilot, but I believe this approach will save us from many more painful lessons in the long run. ◄

Cdr. Murchison is assigned to VA 27, an A-7 squadron based at NAS Lemoore, Calif.

PHC John Francavillo

The Care and Feeding of an LSO

By Lt. Dave Sandgren

The night is dark, as moonless nights usually are in the middle of the Indian Ocean, and it's been nearly two weeks since your last night trap. The "leans" have set in, with at least 30 degrees angle of bank and every snake in the world loose in your cockpit.

"514, Intruder Ball, 6.2."

"Roger Ball, You're low and lined up left."

"Start it back to the right . . . power!"

"You're looking good right there . . . a little right for lineup."

"Level your wings."

"A little power . . . easy with it."

"Attitude!"

The hook snags the four wire. Another tactical naval aviator gets aboard and goes below to fill out the yellow sheet and gather up a bag or two of popcorn for the late evening ready room movie. When the LSO shows up to debrief passes, he's the first to say "Thanks, Paddles. I was all fouled up out there tonight." Paddles grins and replies, "Oh really? I didn't notice anything unusual," and then proceeds to dish out whatever grade was appropriate, which the pilot humbly and gratefully accepts.

But the day-in, day-out LSO duty isn't nearly so simple or glamorous. The landing signal officer is every fleet pilot's best friend and worst enemy. "You've got to be kidding . . . a *no-grade*!?" "I didn't *need* that Power call, Paddles. I already had it on the airplane," or "That's not what I saw, Paddles. Here, let's take a look at it on the PLAT." One of my more inventive pilots even came back with a tape from his airborne video camera, in an attempt to defend his argument. That single act of defiance earned him instant recognition as one of the top 10 "worst-to-debrief" pilots in the air wing by unanimous LSO vote.

LSO training is perhaps naval aviation's most valuable commodity and certainly one of the most difficult to obtain. A good LSO might act as if he was born that way but, in fact, he was trained, and that training no doubt came at the expense of a few pilots' grades. There are built-in checks to prevent such errors, but no system is infallible. Mistakes are going to be made. The idea is that people will learn from them.

I'm not talking about LSO or pilot mistakes, but about one of the greatest relationships developed on earth next to . . . well, let's not get sentimental here.

The relationship between pilot and LSO is not like a marriage, with a 50:50 give-and-take arrangement; it is more like that of a coach and player: The coach tells the player what to do. The player uses every ounce of his ability and concentration to accomplish the coach's directives, and they both hope the choices were right. New players need skillful coaching to become good players. Old guys can handle less than optimum coaching under less than critical game conditions. Players like to play for top-notch coaches; coaches like to coach outstanding players. Good players are made by listening to their coach. Good coaches are made by listening to senior coaches but mostly by coaching players.

If you follow that analogy, try to heed this advice when dealing with a new coach.

- Never squelch a young LSO's confidence or enthusiasm by vocally, publicly and vehemently disagreeing with his calls, concluding with judgments of his intelligence or heritage. Take your grade for what it is worth, remembering in fact that the worse it is, the more it is worth as a training aid.
- Avoid developing a general ready room lack of confidence and respect for the air wing LSO teams. They are all you have.
- If you do have a legitimate disagreement, take it to your senior squadron LSO.
- Finally, don't ask an LSO to publicly admit his error. Trust me; you don't want him doing that. If he "blew" a call he probably knows it; *you*, no doubt, are convinced of it but avoid bringing it to a standoff because you both lose.

Remember, the night will grow dark again and your airplane may be falling apart around you, or at least the snakes will have returned. *His* will not be the rear end that's on the line. You will need a coach with confidence. Help him get it *now*.

When all is said and done, no one really remembers your grade point average, but you'll never forget (even to tell your grandkids) how you were guided aboard when you were sure it would never happen. Don't be the pilot that can't see the forest for the trees.

By the way, PLAT stands for Pilot Landing Aid Television and, contrary to popular belief, not Pilot/LSO argument Terminator.

Lt. Sandgren is a wing-qualified LSO for CVW 11 and an A-6E pilot with VA 95.

U-R-O-K,
I-R-O-K
Who is OK?
What is OK?

By Cdr. T.J. O'Leary, MSC

THE February 1986 Approach carried an article entitled, "Making a Hazard Known, The Bottom Line." An editorial note to that article explained the acronym, "IROK." Unfortunately, one part of the acronym was explained incorrectly. Some of the safety-minded readers of Approach wrote letters to tell us about it. But some of our correspondents were not entirely on the mark either.

There are two sets of defined procedures for ejections. One is for high altitude and the other is for low altitude.

The correct procedure following a high altitude ejection is IROK/ADR:

I **I**nflate life preserver.

R Deploy life **R**aft/RSSK.
(Insure location of canopy release fittings at this point. However, this does not mean one has to physically touch them nor was it ever intended that the acronym was to be altered from the original "IROK" to specifically emphasize this step.)

O Exercise **O**ptions (no priority).
Snap life preserver lobes together.
Raise helmet visor.
Remove oxygen mask, if applicable.
Activate four-line release system.

K Locate **K**och fittings, prepare to release upon water entry.

After water entry:

A **A**void parachute canopy/lines.

D **D**isentangle, if required.

R Retrieve/enter life **R**aft.

The correct procedure following a low altitude ejection is IRK/ADOR:

I **I**nflate life preserver.

R Deploy life **R**aft/RSSK.

K Locate **K**och fittings, prepare to release upon water entry.

After water entry:

A **A**void parachute canopy and lines.

D **D**isentangle, if required.

O Exercise **O**ptions (no priority) listed above.

R Retrieve/enter life **R**aft.

This information is based on CNO msg 161720Z of December 1983 (SUBJ: Policy on Aircrew Emergency Overwater Post-egress Procedures), and the CNO-approved water survival training curriculum as issued by the Naval Aviation Water Survival Training Program Model Manager.

A new training film (¾-inch videotape), entitled "White Water Survival" (SAVPIN No. 801848 DN), has just been released. It also emphasizes these points. It would be well worth the effort to obtain a copy for your next AOM, APM or safety stand-down. The film is available for temporary loan from the general film libraries of the Naval Education and Training Support Centers, Atlantic and Pacific.

Thanks to all who take an active interest in safety and help keep us honest. Keep those cards and letters coming! ◄

Cdr. O'Leary heads the Physiology Branch in the Aeromedical Division at the Naval Safety Center, Norfolk, Va. He has a masters degree in biology from Central Missouri State University, Warrensburg, Mo.

AMSAN Brett Wagner (left),
Lt. Linda Shaffer (right).

Lt. Linda Shaffer
VF 43
AMSAN Brett Wagner
NAS Oceana

Lt. Shaffer was preparing to land at NAS Oceana following a spin training sortie. As her T-2 approached the wheels watch, AMSAN Wagner initially confirmed proper landing gear extension.

As he continued to watch the aircraft's approach, AN Wagner realized that, although the landing gear was down, the nosewheel was missing, leaving the axle exposed. He immediately activated the wave-off lights while advising the tower of the problem. Lt. Shaffer made a close-in wave-off, and subsequently executed a flawless landing past the arresting gear. The aircraft sustained only minor additional damage.

AN Wagner's conscientious attention to detail is especially commendable. At the initial call, he did see proper gear extension and lights, indicating all was well. However, he continued to monitor Lt. Shaffer's approach beyond the normal requirements, and saw that the nosewheel was missing.

The teamwork and dedication by Lt. Shaffer and AN Wagner averted a certain mishap and the possible loss of an aircraft and aviator.

BRAVO ZULU

Lt. Craig Miller (left),
Lt. John Patten (right).

Lt. Craig Miller
Lt. John Patten
VA 52

At dusk, Lt. Miller (pilot) and Lt. Patten (bombardier-navigator) launched on a KA-6D tanker mission from USS *Carl Vinson* (CVN 70). Approximately three-quarters of the way through the catapult stroke, all three fire warning lights illuminated, indicating fires in both engine compartments and the nosewheel well area. Lt. Miller immediately complied with NATOPS procedures for engine fire on takeoff by raising the landing gear, jettisoning external stores and dumping fuel. As the Intruder climbed against the background of the setting sun, two UHF transmissions from outside sources "confirmed" that the aircraft was trailing smoke and on fire. Quickly assessing the situation, Lt. Miller momentarily secured fuel dumping to determine if the fuel dump was the "smoke." The outside observers, looking into the sunset, had mistaken fuel streaming from the wing and fuselage dump masts for smoke. After confirming that the "smoke" had stopped with the secure of fuel dumping, Lt. Miller resumed dumping in order to reach landing weight while a ready deck was made.

Monitoring the emergency from the LSO platform, CVW 15 LSO and VA 52 pilot LCdr. Gerry Peebles suggested the aircrew depress the master warning press-to-test switch. When the switch was depressed and released, the fire warning lights extinguished. Lt. Miller flew the Intruder to a flawless "OK" pass. This aircrew's outstanding situational awareness and sound decision-making in an emergency prevented an ejection and the loss of a valuable fleet asset. ◄

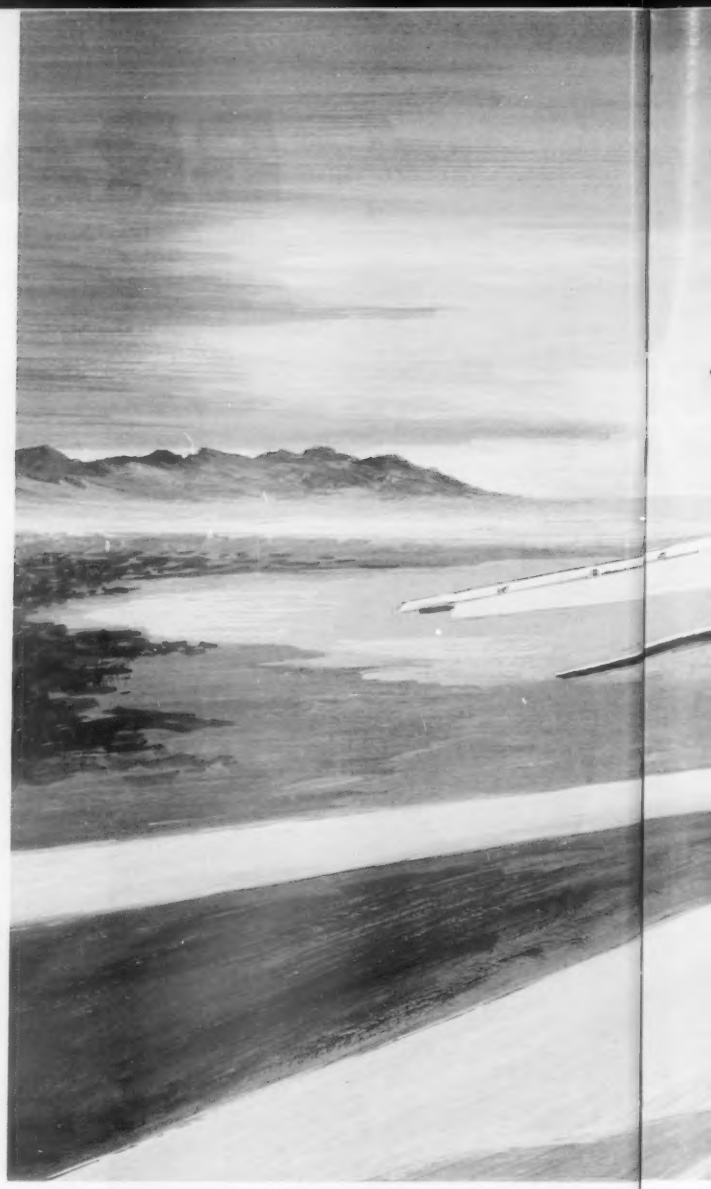
We're halfway down the runway, still airborne and still have 190 kts.

Gotta keep these Tomcats tight on this section go. I'm sure some of these Air Force types here at Nellis are watching. Off come the brakes and we're lookin' good on the roll as we thunder down the runway. With "Nevada" (our flight leader) being smooth as usual we rotate and are airborne. There's the signal to raise the gear, now the signal to come out of afterburner — hey, I can't get the right one out of burner! Yahoo, here we go, spitting out in front of our leader; he probably wonders what the heck I'm doing. Got the throttle back to military now and it seems to be working ok. I must have just ham-fisted it.

"Had a little problem there Nevada, but got it squared away now. You still have the lead, I'll rejoin."

Damn sticky throttle. How embarrassing, and at an Air Force base no less. Well, this sortie can only get better.

"Black Knight Three, your bogeys bear 060 at 22 miles." All right, I smell F-15 meat. My trusty RIO, "Kid", has the knobs spinning in the back. We'll probably have a contact any second. Getting closer to the action; better use a little burner and get some smack on these jets. What the — not again! What's the deal with this right throttle? Stuck in burner again. Maybe there really is something wrong with it. I'll just cycle it up to zone 5 and back. Nope. How about manual throttle mode or the throttle friction? No joy again. I suppose deadly force is authorized here; maybe I can bust it loose — still no luck. I guess the right throttle is going to stay right where it is.



"Kid, there isn't anything in the book about this, is there?"
"I'll check, Rip, but I don't think so."
Hmm . . . guess we'll head home, shut the right one down

More Than Just a Single-Engine L

Landing!

By Lt. D.C. "Rip" Dykhoff

with the emergency handle and land single-engine. Not a fun situation, but it could be worse. Sure glad I've got 11,000 feet to land on instead of USS Boat.

"Rip, Nevada will follow you back. You've got the lead."

"Let's run through the single-engine landing checklist, Kid. We'll do it again after we shut the engine down."

Everything's looking normal except for the stuck throttle. Flying the arrival route with the right engine in minimum afterburner and the left one at idle is giving us about 520 knots indicated — sure wish I could get the speed brakes out to slow down, but the military throttle interlock is working as advertised, keeping the boards retracted.

"Nevada, I think I'm going to go ahead and shut it down so I don't burn all my gas."

"I think I'd wait until we get a little closer to the field, Rip," lead replied.

I guess he's right. Might as well keep it running as long as possible. I'll just have to dump gas anyway since we've still got plenty.

Got the field in sight now and we're going to run over these two F-5s in front of us if we don't slow down; looks like a good time to shut it down and get set up to land. Better start dumping, too. We don't need this 6,500 pounds of JP-4.

"I'll let Approach know we're shutting down the right

engine, Rip."

"Ok. Thanks Kid." Emergencies sure make you appreciate two-seat airplanes.

It didn't take much time to starve the engine after I pulled the shutoff. I guess it burns the last few drops in a hurry when you're in afterburner. Better bring the power up on the left engine; we sure don't need a compressor stall now that only one engine is running. I'll just push the left throttle smoothly up to military. Hey, that doesn't feel like military — and it's only reading about 90 percent! I'll bring it back and then advance it again. Now it's only reading 88 percent. Holy smokes, that's not enough to fly a Turkey with the gear and flaps down! And I don't even know if it's enough to fly it clean.

What now? Should I try to restart the right engine? Let's see, airstart procedure: throttle — off, airstart switch — on, throttle — idle. Definitely can't do that with the right throttle stuck in burner. Maybe if I just pushed the shutoff back in and turned the airstart switch on. I really don't think this thing will restart anyway; I must have cavitated the heck out of the fuel lines when I pulled the shutoff with the engine in burner. I can't land in burner anyway. I would just be buying some time and if it doesn't start I'd be wasting time — I think I better concentrate on using what altitude and speed I have to make this approach work the first time.

Let's see — I know from single-engine landing practice that 88 percent isn't enough to fly level with the gear and flaps down, and I know I don't have any wave-off capability. Salvaging a high rate of descent often requires military power when you're single-engine; we sure don't want to get into that situation. This one approach looks like my only chance to land this jet. We're only eight miles from the field and it looks like a glide slope I can make even with the power I have. I've got to make it happen now; once this altitude is gone that's all she wrote. I wish I had some time to think about this, but it looks like this is my only chance.

We're still really fast. I should have figured that since we shut the engine down indicating 500 plus. That's ok, I can get rid of the extra speed. I just don't want to get caught slow. I think if I get to landing speed I'll have no chance to climb or even fly level. I could raise the gear, but with this much power available I doubt that we could fly with the flaps down and we sure couldn't accelerate to raise them. I guess I better have the runway made and be positive that I can land before I dare let the airplane slow down to landing speed. Oops, forgot to start dumping with all the excitement.

"Dump's coming on, Kid. I don't know how much we'll get rid of with this nose-down attitude."

"Roger that, Rip, I've got my finger on the gage."

Let's see, how did that PEL profile go that we used to fly in A-4s? I wish I knew what kind of glide slope to expect but we never practiced anything like this. I've got to get slowed down here. I'll sideslip and bleed some speed. Geez, this isn't working! With the aircraft clean it's just not slowing down at all on this space shuttle approach I'm flying.

"We're cleared to land on the right, Rip."

"Roger that, Kid."

Only a couple miles out now, and we're still at 400 knots. What do I do? I don't know if I can go around.

"The gear is coming, Kid; the heck with the gear doors!"

That still isn't going to do it. I don't believe it, we're going to cross the threshold at 360 knots! There's no way I can land this thing — but with this much speed I certainly have plenty of energy to get back away from the ground.

"We're going around."

"Roger that, Rip, I'm right behind you."

Ok, gear up and we'll zoom-climb to a low key position if we can get there.

"I think a left turn is our best bet, Kid. After we're through the turn, there's not much below us in case we have to get out."

"Concur, Rip."

Looks like one of the main mounts didn't come up; no wonder after using them for a speed brake at 400 knots. I hope the gear will come back down after all that! Oh good, now all three are up and locked. Better get the dump going again. I sure don't need this 5,500 pounds of fuel.

"We're doing ok, Kid, the airspeed is bleeding fast, but I think we'll make it around."

"Roger that, Rip, we're cleared for either runway."

Abeam the landing area we're about 700 feet AGL and the airspeed is decaying through 250 — we should make it, no problem. I'll just hold the gear and flaps. I can still see us settling into the ground with a single TF-30 at 88 percent. We could be stars in the next film about the backside of the power curve.

Coming through the ninety, we've definitely got it made. The gear is coming, now the flaps. Boy, we're not bleeding as fast as I thought. Don't tell me I'm going to do it again! I am, we're fast again! Crossing the threshold at 230 knots this time, I just can't believe we're this damned hot! We don't have max knots to zoom with this time. I'm almost sure we don't have go-around capability on this one. I'm going to have to land.

Here goes my first 220-knot landing — oh geez, two big bounces —this is not any fun at all. We're halfway down the runway now, still airborne (after two "touch and goes") and we've still got 190 knots. Even a long field arrestment would be a crash here and if we miss the gear I don't even want to think of what would happen.

"We're going around again, Kid. Gear's coming up."

"What about the flaps? I've still got about 175 knots. I know it will fly flaps up at that speed and I've got to minimize my drag.

"Flaps are coming up, Kid. We can fly in ground effect for a while. I'm going to try to restart the right."

But how can I restart the right? It's a long shot that it would work given the state of the right engine. Besides, my only option at this speed is a crossbleed start and that would suck power from the working engine, something I don't have enough of anyway. I better try to fly with what I have. We've done all we can do to minimize the thrust required to fly;

thank God we're not any slower. We may be accelerating a little — the airspeed seems to be creeping up towards 180. This ground effect may be helping; we're sure low enough to get it. Our altitude was later estimated by an observer at 10 feet above the runway.

Some small obstacles appear at the end of the runway. I guess this is it — we'll see if we can get this hog away from the ground. Gently now, if we start bleeding our speed badly this jet's on its way into a smoking hole. We're doing ok. Now a very gentle left turn, we might just make it. Definitely real low through the turn, maybe it will climb a little on downwind.

"Dump's back on, Kid, we may just make it around again."

Uh oh, the flight controls are shaking now; hydraulics seem to be holding up though, not much we can do besides press on.

We're awfully wide abeam after that easy downwind turn. I'll angle back toward the abeam position. Finally made it to 300 feet AGL and 175 knots (clean, of course). I can't get another knot or another foot to save my life. I don't want to pull the nose up. We're just barely hanging on with this airspeed and slowing down will surely increase our drag. If I can just get it through the approach turn, I think we'll make it.

"Tower says we can have a three mile straight-in if we want it, Rip." I guess they think that might help after watching my last landing attempt.

"No, Kid, when we start the approach turn we'll be coming down. Let's plan on turning just past abeam."

"Roger that, Rip." Kid's got about 65 hours in this airplane; at least he's getting a good sea story early in his aviation career.

Time to start the approach turn. Come on, trusty Turkey, hang in there. Bleeding speed a little in the turn but I think we'll make it. Don't have much altitude to play with so I'll have to give away a little speed here. I think we're going to make it! On short final now. "Gear's coming, Kid, and the flaps." Little balloon from the flaps will help us. Now if the wheels just make it down before touchdown — there's the nose, and now both mains! Whew! Now this is a much nicer speed to land at.

"Without the speed brakes and spoilers, we may be a little long on the rollout if we don't catch the gear, Kid."

"I'll read you the airspeeds, you just watch the runway and slow us down, Rip."

Sounds like a plan. It looks like we did miss the short-field gear. Maybe I floated over it as the flaps finished coming down.

"We'll try for the long-field gear but I think we'll be slow by then, Kid."

Coming to a stop now, I think I'll get out and kiss the ground.

"Left engine's coming off, parking brake is set. I'm clear on the canopy. Safeing my seat, Kid."

"I'm safe top and bottom, Rip, the canopy is coming up."

No incident of this type would be complete without an extensive session of Monday morning quarterbacking. A few beers at the Nellis Officers' Club aided me in reaching the following conclusions:

- I really "gooned" the energy assessment on the first two approaches. At the same time, I could argue that we never practice this type of approach, and that I had almost no time to plan the approach and think about what king of glide slope to expect. The bottom line is that I overreacted to my fear of getting slow (and subsequently being unable to keep the airplane flying). The danger of getting slow was a real one, but I let it intimidate me into an overkill on keeping my airspeed. When I discovered the problem with the left throttle, we had the altitude and airspeed to make a 360-degree turn, get down to gear speed and still make a slightly fast/steep approach to the runway. Had we gotten lower or slower than we wanted, we could raise the gear and flaps to improve our glide slope. I didn't realize it at the time, but we probably could have made it to a high key position and shot a circular PEL, although I had no idea of what altitudes to aim for since no PEL approach is included in the F-14 NATOPS. The real problem was that I didn't have any good gouge numbers to shoot for, and didn't have the time and presence of mind required to figure out a good profile.
- A frozen ball bearing prevented the right throttle from being retarded below zone 1 afterburner. We later discovered something interesting about the throttle quadrant — if you split the two throttles (as was the case in this situation) the left throttle of any Tomcat will not advance above about 90 percent with the right throttle in zone 1. You Turkey jocks can try this in one of your planes without even starting the engines. If you then advance the right throttle to zone 5, the left one will regain its normal range of motion. I could have done this airborne (the right throttle would still advance, it just wouldn't retard below zone 1). Of course, I didn't realize there was any interconnection, so I didn't move the right throttle after I shut that engine down. Hopefully NATOPS will reflect this gouge soon.
- Although my energy assessment wasn't good, I thought most of our decisions were pretty solid. We did, after all, get the airplane back on the deck. It even had all of its gear doors intact! Thank goodness for Grumman Iron Works (but I'd still like to have a talk with the guy who designed the throttle quadrant).

In depth engineering analyzsis by NARF NORVA and Grumman of this and similar incidents revealed three separate failure modes for the throttle quadrant. The manufacturer's redesign of the quadrant coupled with failure mode correction procedures promulgated to all users, resolve this hazard both for short and long term. ◄

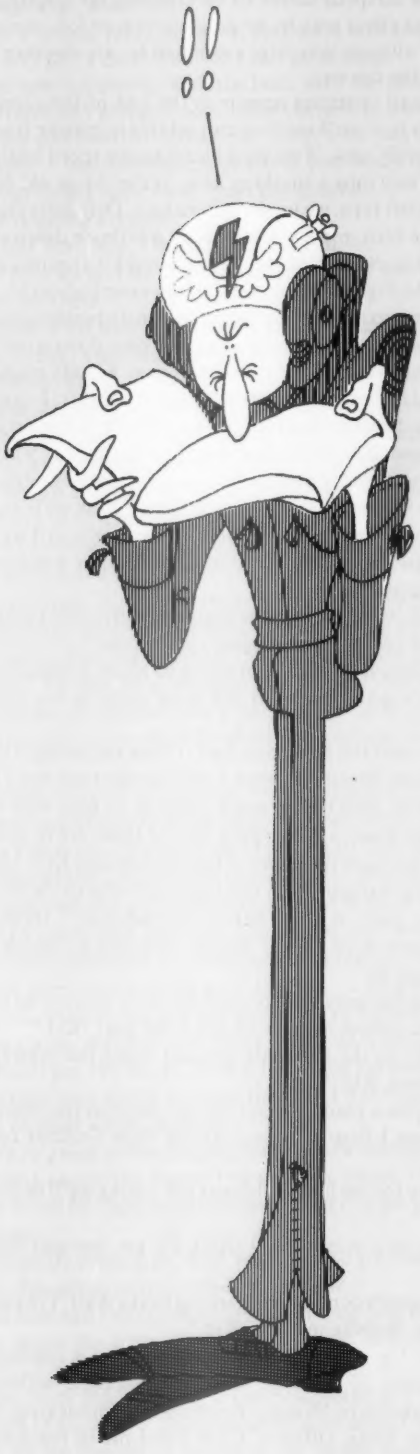
(Three different modes of failure have been identified and are addressed in NAVAIRSYSCOM F-14 Throttle Quadrant Failure SITSUM of 12 May 1986. Maintenance action to inspect and forestall these problems was promulgated in Airframe Bulletins 280 and 282. The ultimate solution lies in a redesign of the throttle quadrant which is in the works. — Ed.)

Lt. Dykhoff flies the F-14 Tomcat with VF 154. He recently completed a seven-month cruise with CVW 14 on board USS *Constellation* (CV 64).

Just Another NATOPS

Lecture

By LCdr. Joe O'Donnell



Safety Officer: "Do you have a NATOPS lecture scheduled for the next AOM? It's been awhile since we've had one."

NATOPS Officer: "Yeah, I know, but I've been really busy lately. I don't have the time to prepare anything this week."

Safety Officer: "Well, why don't you get one of the other guys to do it?"

NATOPS Officer: "I'll try, but I always get a big excuse from everyone I ask. You want to do one?"

Safety Officer: "No way!"

NATOPS Officer: "I know, let's get Newguy!"

Safety Officer: "Yeah!"

Poor Newguy. He is about to fall into the trap that his elder JO comrades have managed to successfully evade: giving the dreaded NATOPS lecture. It's never mentioned with all the other high-stress factors the flight surgeons tell us about, but some may agree that it can indeed be a traumatic experience.

Newguy will probably get a sales pitch from the NATOPS officer with lines like, "It will be good practice for you" and "bullet for your fitrep." He knows when he stands up in front of the ready room he will be getting a visibility check of the highest order. The most ominous figure among the group of listeners will be the skipper, sitting right up front. Then there will be the "experts," who are just waiting for Newguy to get confused on some particular point so they can interrupt with their learned wisdoms, while the vultures in the back rows pounce with rude comments about Newguy's shortcomings that have suddenly become limitless. Maybe the SDO won't make good coffee so everyone else will fall asleep.

It would appear to be a no-win situation. But wait! There is a way to deliver a successful NATOPS lecture even when confronted by a "playful" audience. A NATOPS lecture (or any lecture for that matter) can fall apart for a number of reasons, but the main one is that the lecturer doesn't know the subject material. Know it cold. Make yourself the squadron expert on the subject. Talk to the aircrews with experience, and learn from their sea stories. Most people are more than willing to talk about NATOPS one-on-one. Go and visit NAMTRADET, the RAG or the model manager if you want more information — don't confine your research solely to the NATOPS manual. Knowing the subject cold accomplishes two things. First, it will quickly establish the fact that you know what you're talking about. Second, it will allow you, and not the audience, to control the presentation. You also gain increased confidence and poise. Keep the lecture on track. Don't rush, but smoothly move through the lecture outline. It's all right to stop for questions, but try to keep them as limited as possible, and answer them quickly. Saying something like "I'll be covering that in a minute" will prevent the lecture from turning into a group discussion.

If you master the subject and move smoothly through the material, you may notice that people become more interested in what you are saying.

Some other tips:

— Cover the details and little "gotchas" that are inherent in many aircraft systems, but don't get bogged down with useless trivia.

— Along with the details, cover the areas that people always seem to be a little foggy about. You know what they are. That's where the research comes in.

— Use visual aids. Slides, VCRs, view graphs or just a chalkboard will help you in getting your point across and allow the audience to focus on things other than you, the speaker. Standing in front of the podium reading from the NATOPS manual will produce the usual effect: drowsiness, followed by a comatose audience.

— Keep in mind that visual aids and a little entertainment always keep people interested, but too much levity written into the lecture will produce just that: a comedy act. The audience will not pay attention to your subject if they are constantly anticipating another funny joke or the next slide from your, ahem, collection.

— Although it may not be received with a lot of enthusiasm, a short quiz at the end of a presentation can help to re-emphasize specific areas. It also provides good documentation for training purposes.

— It's probably not as important that someone learn a lot from a given lecture as it is to at least get a good review of that particular system.

— Above all, take the time to practice and fully prepare your lecture. Most NATOPS lectures need not be more than 30 minutes or so, depending on the complexity of the system involved. Keep a copy of the outline in case you are asked to give it again. If the NATOPS officer gives you an outline which is already prepared, check it thoroughly, update it if necessary, and improve upon it as you see fit. A good way to invite disaster is to get up and read from an outline that talks about a light or a switch that was removed from the airplane two years ago.

A good lecture series is one of the main ingredients of a successful NATOPS program. Although it is good to have different individuals cover specific subjects from time to time, the majority of the lectures should be presented by people from the safety department (unlike the fictitious characters at the beginning of this article). Delivering a concise, informative and interesting lecture also has one other advantage: It may make you the next squadron NATOPS officer, which is one of the best jobs a JO can have. ◄

LCdr. O'Donnell served a tour as an A-6 B/N with VA 52, then completed pilot training in 1983. He is the safety officer of VA 75.

LETTERS

Re: Making a Hazard Known — The Bottom Line (Feb '86)

Patuxent River, Md. — The response by PRCM D.B. Leighton to the article by LCdr. Kennedy used the training command axiom for the problem cited in the article. The "IROK" axiom is for conscious aircrew with at least one usable arm and hand. The point of the article was stated in the first sentence ". . . will suffocate an unconscious or incapacitated pilot . . .". When I ejected from an F-4, my emergency oxygen system did not work and had I sustained flail injuries to both arms I would not be available to make this comment now.

Another problem in the response is the use of statistics that in and of themselves are accurate, but are not necessarily germane to the problem. The out-of-control ejection altitude listed in most NATOPS is 10,000 feet AGL, the altitude LCdr. Kennedy referred to in his article. Would it not have been more appropriate to present statistics on the number of post ejection problems due to improperly operating emergency oxygen systems and unconscious or incapacitated aircrew?

LCdr. Brian E. Koenig
Naval Air Test Center CTO1B

• PRCM Leighton's comments concerning the axion "IROK" would only apply in a situation where an aviator is conscious and has use of at least one arm and hand. In this regard LCdr. Koenig is correct. — Ed.

Re: Enter the Dragon (Feb '86)

Wright-Patterson AFB, Ohio — We don't believe a parking ramp or any other 120-degree surface can ignite spilled fuel. The minimum auto-ignition temperature for JP-4 is 450 degrees Fahrenheit, which was determined by heating fuel in a vessel under ideal conditions.

The "real world" hot surface ignition temperature is generally considered to be above 700 degrees Fahrenheit. We verified this by spraying JP-4 on a heated aircraft brake stack assembly in a laboratory test. We recommend AFWAL Technical Report 85-2057, Aircraft Mishap Fire Pattern Investigations, for a more detailed discussion of fuel ignition from hot surfaces.

We're inclined to believe your reported fires were due to static electricity. If you have any information to the contrary, we would appreciate receiving it.

Col. Thomas N. Moe, USAF
Director of Safety
Inspection and Safety Center
Hqs., Air Force Logistics Command

• The culprit in this case is not static electricity. The problem was most probably due to engine-produced hot air leaking past a particle-contaminated drain valve at military power, heating the drain collector assembly to a temperature high enough for auto-ignition. This information comes from Naval Safety Center Flight Advisory 01-85 of 26 July 85 based on engineering at the Naval Air Rework Facility, Norfolk. Further testing showed that under severe ambient temperatures there is a slow rate of cool down of the collector. A fire could occur following shutdown as fuel dumping overboard from the P&D valve through the drain collector ignites. This is also a problem with USAF's F-111, which has a drain plumbing design similar to the F-14A's TF30-414 engines. — LCdr. Dana D. Barclay, F-14A analyst, Aircraft Operations Division, Naval Safety Center.

Who Let Us Down?

NAS Whidbey Island, Wash. — I'm tired of walking through hangars and finding unsafe conditions. I'm tired of reporting safety violations, admonishing violators and preventing unsafe equipment from being used. As a squadron safety petty officer, I shouldn't be the only one to see these things. And if the safety program is effective, I should only hear of discrepancies in conjunction with how they have been corrected.

When did we ease up on ensuring that equipment is in the proper operating condition and that a preoperation inspection has been completed? When did we stop "doing it right the first time?" Who let us down? . . . Just in case you don't know who's responsible . . . We did it to ourselves. How so?

When we reported an infraction to quality assurance (QA) and nothing was done about it, we let the entire matter slide instead of going to a higher authority. Our reaction was, "If QA isn't going to do anything about it, why should I do anything more?"

We can help beat this rap by communicating more extensively. For example, write a memo to the QA petty officer, via the QA officer, with copies to the maintenance officer and the officer in charge. If the problem isn't corrected in a timely manner, follow-up on the problem and if necessary, send a second memo.

The only way we can have an effective safety program is to keep everyone aware of the problems, their responsibility to correct them and their accountability to make sure they are corrected.

AD1 C.F. Dickinson
VP 69

Approach welcomes letters from its readers. All letters should be signed though names will be withheld on request. Address: Approach Editor, Naval Safety Center, NAS Norfolk, VA 23511-5796. Views expressed are those of the writers and do not imply endorsement by the Naval Safety Center.

1-800-HOT-SFTY

Got a safety question that needs a fast answer? Now you've got our number! A toll-free safety hot line is now available for use 24 hours a day in the continental U.S., Hawaii, Puerto Rico and the Virgin Islands. (Persons in Virginia and the D.C. area should call Autovon 564-3520 or (804) 444-3520.) Give us a call — we're here to help!

1-800-HOT-SFTY

Poster idea contributed by MSgt. J.W. Goerler, VMA 231.